



[7590-01-P]

**NUCLEAR REGULATORY COMMISSION**

**[Docket No. 040-8610; NRC-2008-0591]**

**Stepan Company**

**AGENCY:** Nuclear Regulatory Commission.

**ACTION:** License termination; issuance.

**SUMMARY:** The U.S. Nuclear Regulatory Commission (NRC) is providing public notice of the termination of Source Materials License No. STC-1333. The NRC has terminated the license of the decommissioned Stepan Company facility in Maywood, New Jersey, and has approved the site for unrestricted release.

**DATES:** Notice of termination of Source Materials License No. STC-1333 issued on **[INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*]**.

**ADDRESSES:** Please refer to Docket ID **NRC-2008-0591** when contacting the NRC about the availability of information regarding this document. You may obtain publicly-available information related to this document using any of the following methods:

- **Federal Rulemaking Web Site:** Go to <http://www.regulations.gov> and search for Docket ID **NRC-2008-0591**. Address questions about NRC dockets to Carol Gallagher; telephone: 301-415-3463; e-mail: [Carol.Gallagher@nrc.gov](mailto:Carol.Gallagher@nrc.gov). For technical questions, contact the individual listed in the FOR FURTHER INFORMATION CONTACT section of this document.

- **NRC's Agencywide Documents Access and Management System (ADAMS):** You may obtain publicly-available documents online in the ADAMS Public Documents collection at <http://www.nrc.gov/reading-rm/adams.html>. To begin the search, select "[ADAMS Public](#)

[Documents](#)” and then select “[Begin Web-based ADAMS Search](#).” For problems with ADAMS, please contact the NRC’s Public Document Room (PDR) reference staff at 1-800-397-4209, 301-415-4737, or by e-mail to [pdr.resource@nrc.gov](mailto:pdr.resource@nrc.gov). The ADAMS accession number for each document referenced (if that document is available in ADAMS) is provided the first time that a document is referenced.

- **NRC’s PDR:** You may examine and purchase copies of public documents at the NRC’s PDR, Room O1-F21, One White Flint North, 11555 Rockville Pike, Rockville, Maryland 20852.

**FOR FURTHER INFORMATION CONTACT:** Kim Conway, Office of Nuclear Material Safety and Safeguards, U.S. Nuclear Regulatory Commission, Washington DC 20555-0001; telephone: 301-415-1335, e-mail: [Kimberly.Conway@nrc.gov](mailto:Kimberly.Conway@nrc.gov).

#### **SUPPLEMENTARY INFORMATION:**

The NRC has terminated License No. STC-1333, held by Stepan Company (Stepan), for a site in Maywood, New Jersey, and has approved the site for unrestricted release.

Maywood Chemical Works processed thorium ore at its Maywood facility in northeastern New Jersey between 1916 and 1956. Radioactive contamination resulted from these processing operations and associated material storage and waste disposal practices. In 1959, Stepan Chemical Company (now Stepan Company) purchased the Maywood facility. In the late 1960s, Stepan took corrective measures at some of the former disposal areas by re-locating approximately 19,000 cubic yards of thorium wastes and consolidating the wastes into three

onsite burial pits. The three onsite burial pits were subsequently licensed by the NRC under materials license STC-1333.

In 1983, the U.S. Environmental Protection Agency (EPA) included the Maywood facility on its National Priorities List for cleanup under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). In 1984, the U.S. Department of Energy (DOE) assumed responsibility for remediating the Maywood facility (including the NRC-licensed burial pits) and 87 other designated residential, commercial, and government properties that were contaminated by the thorium processing activities at the former Maywood Chemical Works. The Maywood facility was included in the Formerly Utilized Sites Remedial Action Program (FUSRAP) along with the other 87 radiologically contaminated properties.

In October 1997, the administration of FUSRAP was transferred from DOE to the U.S. Army Corps of Engineers (USACE). In September 2003, the Record of Decision (ROD) for Soils and Buildings at the FUSRAP Maywood Superfund Site was issued. In the ROD, the specific concentration-based cleanup criteria for the radioactive contamination in soil for commercial properties (relevant to the Stepan burial pits) was determined to be an average of 15 picocuries/gram (pCi/g) of the combined radium-226 (Ra-226) plus thorium-232 (Th-232) concentrations above background, with an “as low as is reasonably achievable” (ALARA) goal of 5 pCi/g. The ROD also includes a criterion of 100 pCi/g above background for total uranium, which equates to approximately 50 pCi/g of uranium-238 (U-238).

On October 21, 2008, the NRC executed a Confirmatory Order to suspend Stepan’s license, contingent upon USACE notifying the NRC of their intent to take physical possession of all, or part, of the licensed portions of the site (ADAMS Accession No. ML082760095). The Order provided the USACE with the mechanism to request that the NRC suspend the NRC’s

license for the Stepan burial pits. In December 2008, August 2009, and January 2010, the USACE notified the NRC that it had taken physical possession of Burial Pits # 2, # 3, and # 1, respectively.

On February 14, 2012, the USACE notified the NRC that the remediation response action had been completed for all three of the NRC-licensed burial pits, and pursuant to the MOU, USACE also provided notification of its intent to terminate physical possession of all three licensed burial pits in May 2012 (ADAMS Accession No. ML120880217). On May 7, 2012, NRC license STC-1333 was reinstated when Stepan reestablished possession of the burial pits in accordance with the Confirmatory Order (ADAMS Accession No. ML12159A537). By letter dated August 15, 2014, Stepan submitted a request to the NRC for the termination of their materials license (ADAMS Accession No. ML14259A103). As part of this submittal, Stepan provided the NRC with the USACE's Post Remedial Action Reports for each of the burial pits (ADAMS Accession Nos. ML12046A500, ML12046A502, and ML12046A504, respectively). On July 20, 2015, Stepan provided a response to the NRC's request for additional information (ADAMS Accession No. ML15217A026) and a radiological dose assessment (ADAMS Accession No. ML15217A025).

The NRC has now completed its review of the reports and associated documents according to NUREG-1757, "Consolidated Decommissioning Guidance," and guidance in the Multi-Agency Radiation Survey and Site Investigation Manual) MARSSIM (NUREG 1575). The NRC staff has concluded that the Final Site Survey (FSS) design and data collected were adequate to

characterize the residual radioactivity in the NRC-licensed portions of the Stepan site. The NRC staff also concluded that the data analysis and dose assessments performed are appropriate and that the projected dose from residual radioactivity in these areas is less than the 25 mrem/year dose criterion in 10 CFR 20.1402. Stepan has also submitted a completed NRC Form 314 ("Certificate of Disposition of Materials") and otherwise met the requirements of 10 CFR 40.42(j), the NRC regulation concerning the final step in the decommissioning process for a 10 CFR Part 40 source materials license. For these reasons, the NRC staff has determined that Stepan has demonstrated that the site will meet the radiological criteria for license termination described in 10 CFR 20.1402. Therefore, Source Materials License No. STC-1333 has been terminated.

Dated at Rockville, Maryland, this 18<sup>th</sup> day of February 2016.

For the Nuclear Regulatory Commission.

Bruce A. Watson, CHP, Branch Chief,  
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